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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,029	10/06/2000	Martin R. Hamar	HAMAR-119	1050

1218 7590 05/19/2003

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EXAMINER

ESPLIN, DAVID B

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 05/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/684,029	HAMAR, MARTIN R.	
	Examiner	Art Unit	
	D. Ben Esplin	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5,8-14 and 17-19 is/are rejected.
- 7) Claim(s) 6,7,15,16 and 20-22 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,818,107 to Ono et al.

FIG. 4 of Ono shows a target assembly including three light sensitive target cells (photodetection units 2, 3, and 4), and a support plate (body 1).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,098,297 to Belfiore.

FIG. 1 of Belfiore illustrates a method for aligning a sheave system including fixing a laser module (projector assembly) to the grooves of a first sheave (pulley 30), fixing a target assembly (target assembly 27) to the grooves of a second sheave (pulley 32), generating a

reference plane by the laser module (laser cross hairs 121 and 122 are each a reference plane), measuring alignment data (a user observes the image of the reference planes on the target assembly as described in col. 2 lines 27-33), calculating correction data based on the measured alignment data (user determines how far to adjust the position of the sheaves based on observation as described in the section cited above), and adjusting the first and second sheaves until the correction data is within an acceptable range (eventually the reference planes impinge upon the target cross hairs as described in col. 2 lines 43-54). Further, FIG. 6 of Belfiore shows the target assembly as including three light-sensitive target cells (electronic sensors 194, 195, and 199) arranged such that two of the cells (sensors 194, and 195) are in the same perpendicular plane positioned further away from the laser module than a first cell (sensor 199).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 8-14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belfiore in view of Ono.

FIG. 1 of Belfiore applied as above shows a sheave laser alignment system including a laser module mounted to a groove on a first sheave, and a target assembly mounted to a groove on a second sheave. Also, in FIG. 4, Belfiore shows that the target assembly should include a ball mount including a ball (ball 174) to engage a groove of the second sheave, and that the

target assembly should include a target pole (tubular target housing 154). Belfiore further includes the use of three light-sensitive target cells mounted to a support plate (circular target plate 184). However, the target cell and support plate of Belfiore do not have the specific alignment called for in these claims, and the laser module of Belfiore may not be operable for sweeping a reference plane. But Applicant has submitted the use of a scanning laser and targets mounted to an object in order to determine the position of the targets and the object to which they are mounted was well known in the art (see the last paragraph on page 2). Still further, FIG. 4 of Ono, applied as above, that this configuration of target cells and support plate were well known in the art for this very same purpose. Therefore, it would have been obvious to replace the static laser and cross-hairs detection target of Belfiore with a scanning laser and a support plate including three target cells as described by Ono as an art recognized alternative position determining method, as acknowledged by the Applicant.

Allowable Subject Matter

Claims 6, 7, 15, 16, and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Referring to claims 6, 7, 15 and 16, the use of a ball mount including multiple balls arranged in an L-shape for supporting a target assembly in the grooves of a sheave, along with the rest of the structure and function of these claims, is not found in the prior art.

Regarding claims 20-22, the exact methods of determining the groove, pitch, and yaw error disclosed in these claims is not suggested by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,434,841 to Stahl et al. discloses a pulley alignment tool for mounting to the grooves of a sheave.

U.S. Patent No. 5,884,239 to Rommanick Jr. discloses a triangulation system that involves a scanning laser module and a plurality of target cells.

U.S. Patent No. 5,742,394 to Hansen discloses a position determining method including a scanning laser module and an arrangement of three target cells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Ben Esplin whose telephone number is (703) 305-4022. The examiner can normally be reached on Mon.-Fri. (8am-4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russell E. Adams can be reached on (703) 308-2847. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


DBE
May 13, 2003


RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
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